

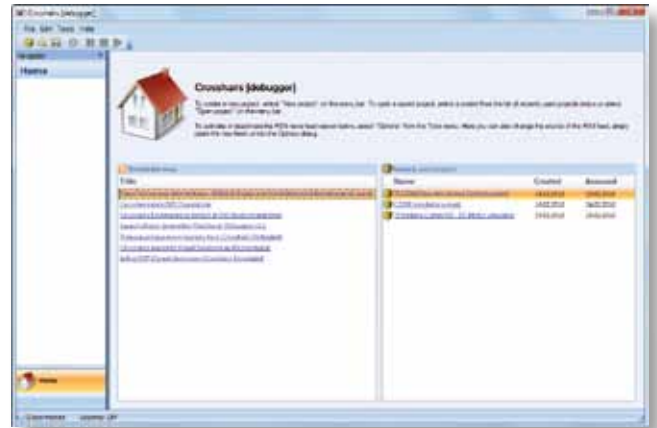
# CROSSHAIRS [ ] EMBEDDED

Invaluable [insight] through precise software solutions

## Crosshairs Embedded [Functional Debugger]

Crosshairs Embedded Functional Debugger software lets you easily and quickly see and control what's really happening inside your embedded system – whether you're on-site or on the other side of the world.

With Crosshairs Embedded, so much is possible. Eliminate faults before they're serious, or even before they happen. Redesign for better efficiency, without disruption. Reduce the resources you've dedicated to fixing software, and redeploy them to focus on your core business. Enhance your reputation with clients through consistently reliable production. Quite simply: minimize downtime, optimize output, maximize profits.

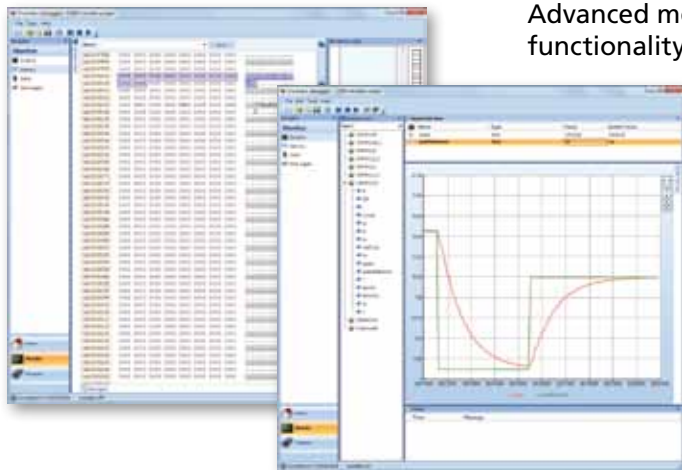


### Monitor module

#### Dynamic

The Dynamic module provides real-time, non-intrusive interaction to all globally accessible variables in your user application:

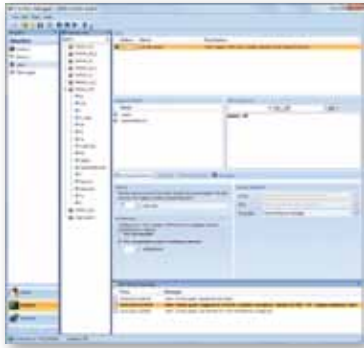
- Hierarchical symbols listing providing detailed type and variable information, as well as drag-and-drop of variables to other module components.



- Intuitive variable view with powerful features such as variable monitoring and editing, value scaling and various number formats and presentation modes.
- Highly optimized and customizable real-time graph that allows for zooming, panning, scrolling and saving of historical graph data. Advanced memory inspection functionality.
- Single-variable updates at 65 times per second.
- Multi-variable updates at 30 times per second with full COMMROS.

#### Memory

- Advanced and user-friendly memory viewer and editor with different groupings, numerical formats, ASCII representation of memory contents and interactive highlighting.
- Browse memory by application section, symbol or address input.
- Graphical presentation of all application sections parsed from the application executable.
- Inline editing of memory.
- Dynamically supports different byte sizes (8-bit, 16-bit etc.).



## Alerts

- Unattended, periodical evaluation of system parameters based on user-specified conditions.
- Condition evaluation is time-configurable from milliseconds to hours and days.
- Condition parameters are logged, together with additional optional system parameters.
- Alert notifications can be delivered on-screen, by e-mail or mobile text message.

## Top quality product

If you are looking for a simple, proven and efficient Debugger for the TMS320F28xx devices, then Crosshairs Embedded is likely the most appropriate solution.

*Emmanuel Samboris*

**General Manager -  
Metering Business Unit**  
Texas Instruments



## Datalogger

- Extremely powerful, high-resolution on-demand data logging through Crosshairs Embedded COMMROS probe points.
- Logging is initiated through configurable trigger conditions, either level or edge based.
- Supports pre-triggering and sample frequency control (downsampling).
- Sample frequency only limited by hardware capabilities (nanosecond level).
- Uses simple code instrumentation with COMMROS probe points.
- No impact on user application when inactive, minimal impact when active.
- On-target buffer size limited by available RAM, fully configurable.

## Program module

- Fail-safe and secure remote operation through the Crosshairs Embedded [Engine].
- Flash algorithm, application file and flash configuration transmitted securely to engine for local or remote execution.
- Intuitive clock configuration for custom hardware, system provides reference values for supported cores.
- Provides flash algorithms for supported cores, also supports custom flash algorithms.
- Full control over which sectors to erase and which sections to program.
- Graphical memory map with automatic erase/program highlighting.
- Internal flash programming for most TI C2000-family devices using Crosshairs Embedded COMMROS or TI Bootloader.

